Agency for Healthcare Research and Quality
Advancing Excellence in Health Care

NATIONAL QUALITY MEASURES CLEARINGHOUSE

General

Title

Routine prenatal care: percentage of vaginal birth after cesarean (VBAC)-eligible women who receive general education describing risks and benefits of VBAC (e.g., the American College of Obstetricians and Gynecologists pamphlet on VBAC).

Source(s)

Institute for Clinical Systems Improvement (ICSI). Routine prenatal care. Bloomington (MN): Institute for Clinical Systems Improvement (ICSI); 2010 Jul. 98 p. [339 references]

Measure Domain

Primary Measure Domain

Process

The validity of measures depends on how they are built. By examining the key building blocks of a measure, you can assess its validity for your purpose. For more information, visit the Measure Validity page.

Secondary Measure Domain

Does not apply to this measure

Brief Abstract

Description

This measure is used to assess the percentage of vaginal birth after cesarean (VBAC)-eligible women who receive general education describing risks and benefits of VBAC (e.g., the American College of Obstetricians and Gynecologists pamphlet on VBAC).

Rationale

The priority aim addressed by this measure is to increase the percentage of vaginal birth after cesarean (VBAC)-eligible women who receive documented education describing risks and benefits of VBAC.

Primary Clinical Component

Prenatal care; vaginal birth after cesarean (VBAC); patient education of risks and benefits

Denominator Description

Total number of vaginal birth after cesarean (VBAC)-eligible women whose medical records are reviewed (see the related "Denominator Inclusions/Exclusions" field)

Numerator Description

Number of vaginal birth after cesarean (VBAC)-eligible women with documentation of education of the risks and benefits of VBAC (see the related "Numerator Inclusions/Exclusions" field)

Evidence Supporting the Measure

Evidence Supporting the Criterion of Quality

A clinical practice guideline or other peer-reviewed synthesis of the clinical evidence

Evidence Supporting Need for the Measure

Need for the Measure

Unspecified

State of Use of the Measure

State of Use

Current routine use

Current Use

Internal quality improvement

Application of Measure in its Current Use

Care Setting

Physician Group Practices/Clinics

Professionals Responsible for Health Care

Physicians

Lowest Level of Health Care Delivery Addressed

Group Clinical Practices

Target Population Age

Women of childbearing age

Target Population Gender

Female (only)

Stratification by Vulnerable Populations

Unspecified

Characteristics of the Primary Clinical Component

Incidence/Prevalence

Unspecified

Association with Vulnerable Populations

Unspecified

Burden of Illness

- While the mother's risk of major complications (hysterectomy, uterine rupture, operative injury) with trial of labor is slightly higher (1.6%) than a scheduled repeat caesarean delivery (0.8%), these risks are still quite low.
- Symptomatic rupture of the gravid uterus carries a 45.8% perinatal mortality and a 4.2% maternal mortality and occurs in 4.3% to 8.8% of women with a high vertical uterine scar.
- Incisions penetrating the muscular layer of the uterus may weaken this area and increase the risk of uterine rupture.
- A history of previous uterine dehiscence or rupture has a rate of repeat separation of 6.4% if previous uterine incision was in the lower segment, and 32.1% if the scar is in the upper segment with complication rates assumed to be similar to those of the primary uterine rupture.
- A patient with a history of failure to progress in labor or a borderline pelvis on clinical pelvimetry has a 61% to 79% success rate for a vaginal birth after cesarean (VBAC), slightly lower than those without a diagnosis.

Evidence for Burden of Illness

Caughey AB, Shipp TD, Repke JT, Zelop CM, Cohen A, Lieberman E. Rate of uterine rupture during a trial of labor in women with one or two prior cesarean deliveries. Am J Obstet Gynecol. 1999 Oct;181(4):872-6. PubMed

Duff P, Southmayd K, Read JA. Outcome of trial of labor in patients with a single previous low transverse cesarean section for dystocia. Obstet Gynecol. 1988 Mar;71(3 Pt 1):380-4. PubMed

Eden RD, Parker RT, Gall SA. Rupture of the pregnant uterus: a 53-year review. Obstet Gynecol. 1986 Nov;68(5):671-4. PubMed

Gabbe SG. Caesarean delivery. In: Obstetrics: normal and problem pregnancies. 3rd ed. Churchill Livingstone; 1986. 597-615 p.

McMahon MJ, Luther ER, Bowes WA Jr, Olshan AF. Comparison of a trial of labor with an elective second cesarean section. N Engl J Med. 1996 Sep 5;335(10):689-95. PubMed

Mozurkewich EL, Hutton EK. Elective repeat cesarean delivery versus trial of labor: a meta-analysis of the literature from 1989 to 1999. Am J Obstet Gynecol. 2000 Nov;183(5):1187-97. PubMed

O'brien-Abel N. Uterine rupture during VBAC trial of labor: risk factors and fetal response. J Midwifery Womens Health. 2003 Jul-Aug;48(4):249-57. [58 references] PubMed

Pridjian G. Labor after prior cesarean section. Clin Obstet Gynecol. 1992 Sep;35(3):445-56. [33 references] PubMed

Ritchie EH. Pregnancy after rupture of the pregnant uterus: A report of 36 pregnancies and a study of cases reported since 1932. J Obstet Gynaecol Br Commonw. 1971 Jul;78(7):642-8. PubMed

Shipp TD, Zelop C, Cohen A, Repke JT, Lieberman E. Post-cesarean delivery fever and uterine rupture in a subsequent trial of labor. Obstet Gynecol. 2003 Jan;101(1):136-9. PubMed

Shipp TD, Zelop C, Repke JT, Cohen A, Caughey AB, Lieberman E. The association of maternal age and symptomatic uterine rupture during a trial of labor after prior cesarean delivery. Obstet Gynecol. 2002 Apr;99(4):585-8. PubMed

Suonio S, Saarikoski S, Raty E, Vohlonen I. Clinical assessment of the pelvic cavity and outlet. Arch Gynecol. 1986;239(1):11-6. PubMed

Utilization

Unspecified

Costs

Unspecified

Institute of Medicine (IOM) Healthcare Quality Report Categories

IOM Care Need

Staying Healthy

IOM Domain

Effectiveness

Patient-centeredness

Data Collection for the Measure

Case Finding

Users of care only

Description of Case Finding

Women at a prenatal visit who are vaginal birth after cesarean (VBAC)-eligible

Each month a minimum sample of prenatal visits is identified. This may be accomplished either by administrative search (Current Procedure Terminology [CPT-4] codes 59510, 59400, or International Classification of Diseases, Ninth Revision [ICD-9] code V22.0), or by other case identification at the medical group. From that sample, it would be best to identify 20 VBAC-eligible women or total number in a month if fewer than 20.

Suggested time frame for data collection is monthly.

Denominator Sampling Frame

Patients associated with provider

Denominator Inclusions/Exclusions

Inclusions
Total number of vaginal birth after cesarean (VBAC)-eligible women whose medical records are reviewed and who do not have any of the following contraindications to VBAC:

- Previous classic cesarean delivery
- Some uterine surgery, e.g., hysterotomy, deep myomectomy, cornual resection, and metroplasty
- Previous uterine rupture or dehiscence
- Some maternal/fetal medical conditions, such as open neural tube defect and complete placenta previa
- Unknown uterine scar if there is a high likelihood of classical scar
- Rare psychological or social conditions that indicate the patient may not be a good candidate

Exclusions
Unspecified

Relationship of Denominator to Numerator

All cases in the denominator are equally eligible to appear in the numerator

Denominator (Index) Event

Clinical Condition

Encounter

Denominator Time Window

Time window is a single point in time

Numerator Inclusions/Exclusions

Inclusions
Number of vaginal birth after cesarean (VBAC)-eligible women with documentation* of education of the risks and benefits of VBAC

**Documented* is defined as any evidence in the medical record that a clinician provided education to the VBAC-eligible woman of the risks and benefits of VBAC.

Exclusions
Unspecified

Measure Results Under Control of Health Care Professionals, Organizations and/or Policymakers

The measure results are somewhat or substantially under the control of the health care professionals, organizations and/or policymakers to whom the measure applies.

Numerator Time Window

Episode of care

Data Source

Administrative data

Medical record

Level of Determination of Quality

Individual Case

Pre-existing Instrument Used

Unspecified

Computation of the Measure

Scoring

Rate

Interpretation of Score

Better quality is associated with a higher score

Allowance for Patient Factors

Unspecified

Standard of Comparison

Internal time comparison

Evaluation of Measure Properties

Extent of Measure Testing

Unspecified

Identifying Information

Original Title

Percentage of VBAC-eligible women who receive general education describing risks and benefits of VBAC (e.g., the American College of Obstetricians and Gynecologists pamphlet on VBAC).

Measure Collection Name

Routine Prenatal Care Measures

Submitter

Institute for Clinical Systems Improvement - Nonprofit Organization

Developer

Institute for Clinical Systems Improvement - Nonprofit Organization

Funding Source(s)

The following Minnesota health plans provide direct financial support: Blue Cross and Blue Shield of Minnesota, HealthPartners, Medica, Metropolitan Health Plan, PreferredOne and UCare Minnesota. In-kind support is provided by the Institute for Clinical Systems Improvement's (ICSI) members.

Composition of the Group that Developed the Measure

Work Group Members: Dale Akkerman, MD (Work Group Leader) (Park Nicollet Health Services) (Ob/Gyn); Kari Rabie, MD (Southside Community Health Services) (Family Medicine); Carol Stark, MD (Family

HealthServices Minnesota) (Family Medicine); Carl Rose, MD (Mayo Clinic) (Maternal-Fetal Medicine); Georgeanne Croft, CNM (HealthPartners Medical Group) (Nurse Midwifery); Anna Levine, CNM (Park Nicollet Health Services) (Nurse Midwifery); John Vickers, MD (HealthPartners Medical Group) (Ob/Gyn); Dawn Bowker, NP (Obstetrics and Gynecology Associates, P.A.) (Ob/Gyn Nursing); Corinne Esch, RN, CDS (HealthPartners Medical Group) (Ob/Gyn Nursing); Carmen Hansen, BSN (Institute for Clinical Systems Improvement) (Facilitator); Linda Setterlund, MA, CPHQ (Institute for Clinical Systems Improvement) (Facilitator)

Financial Disclosures/Other Potential Conflicts of Interest

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Carl Rose, MD has received research and grant funding from Sequenom for the study of fetal DNA. All funds were paid to Mayo Clinic.

Dawn Bowker, RN has received payment for a public education campaign with Boehringer Ingelheim Pharmaceuticals.

No other work group members have potential conflicts of interest to disclose.

Adaptation

Measure was not adapted from another source.

Release Date

2005 Aug

Revision Date

2010 Jul

Measure Status

This is the current release of the measure.

This measure updates a previous version: Institute for Clinical Systems Improvement (ICSI). Routine prenatal care. Bloomington (MN): Institute for Clinical Systems Improvement (ICSI); 2009 Aug. 93 p.

Source(s)

Institute for Clinical Systems Improvement (ICSI). Routine prenatal care. Bloomington (MN): Institute for Clinical Systems Improvement (ICSI); 2010 Jul. 98 p. [339 references]

Measure Availability

The individual measure, "Percentage of VBAC Eligible Women Who Receive General Education Describing Risks and Benefits of VBAC (e.g., the American College of Obstetricians and Gynecologists Pamphlet on VBAC)," is published in "Health Care Guideline: Routine Prenatal Care." This document is available from the Institute for Clinical Systems Improvement (ICSI) Web site .

For more information, contact ICSI at, 8009 34th Avenue South, Suite 1200, Bloomington, MN 55425; phone: 952-814-7060; fax: 952-858-9675; Web site: www.icsi.org ; e-mail: icsi.info@icsi.org.

NQMC Status

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